

Remarks

Receipt is acknowledged of the Final Office Action mailed July 26, 2005. No new matter has been introduced. Claims 1-3 are pending.

Claim Rejections under 35 USC § 102

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,365,419 to Durlam et al. ("Durlam"). Applicants respectfully traverse this rejection for at least the following reasons.

In the instant invention, a barrier layer 55 and an insulating film spacer 57 is sequentially formed on a sidewall of a hardmask 51 and a free magnetic layer 49. After the barrier layer 55 and an insulating film spacer 57 is formed an etching is performed. The stacked structure of the instant invention is clearly shown in Fig. 3d. In contrast, in Durlam, an etch stop layer 52 and a hardmask layer 55 is deposited on a sidewall spacer 50 which is formed on a free magnetic layer 46 and a top metal layer 48. In Durlam, the etch occurs after the etch stop layer 52 and a hardmask layer 55 are deposited. This stacked structure is shown in Fig. 13 of Durlam.

Comparing the figures, it can be seen that the stacked structures are different. While the stacked structure of the present invention comprises a hardmask layer 51 over the free magnetic layer 49, the stacked structure of Durlam comprises a top metal layer 48 over the free magnetic layer 46. In addition, the present invention comprises a stacked structure where the insulating film spacer 57 is formed over the barrier layer 55. In contrast, in Durlam, the spacer layer 50 is clearly formed *under* the barrier layer 52. Accordingly, it is clear that the method steps of the present invention are distinct from the disclosed method in Durlam as the order of the stacked structure layers are distinct.

For at least the aforementioned reasons, withdrawal of the final rejection under 35 U.S.C. §102(e) is respectfully requested.

Claim Rejections under 35 USC § 103

Claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Durlam in view of U.S. Patent No. 6,518,588 to Parkin et al. ("Parkin"). The Examiner correctly states that Durlam fails to disclose "forming a Ta barrier layer and an insulating oxide film." Office Action, page 4. Accordingly, the Examiner cites Parkin to cure the deficiencies of Durlam recited by the Examiner. Regardless of whether Parkin does or does not cure the stated deficiencies of Durlam (Applicants do believe this to be the case), Parkin fails to cure the deficiencies of Durlam stated above with respect to claim 1. Accordingly, as claims 2 and 3 are dependent upon claim 1, claims 2 and 3 are believed to be allowable for at least the aforementioned reasons with respect to claim 1 in addition to the further patentable features recited therein. Withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the above amendment and remarks, Applicants respectfully request that all objections and rejections be withdrawn and that a notice of allowance be forthcoming. The Examiner is invited to contact the undersigned representative for Applicants for any reason related to the advancement of this case.

Respectfully submitted,

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